



### Executive Office

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May 29, 2003

The Honorable Wesley Chesbro, Chair Joint Legislative Budget Committee 1020 N Street, Room 522 Sacramento, CA 95814

#### Dear Senator Chesbro:

Senate Bill 5 (Chapter 7, Statutes of 2001, First Extraordinary Session) requires the Department of General Services (DGS) to submit quarterly reports to the Legislature and to the Governor on the \$40 million appropriated to the DGS for energy efficiency projects in state buildings and community colleges. The attached report entitled "Energy Efficiency Projects – SB 5X Legislative Report" fulfills this requirement.

The entire \$40 million appropriation for energy projects has been committed. A breakdown of the fund allocation is provided below:

- Approximately \$35.9 million has been committed for projects at 29 state facilities and community colleges. Currently, 13 of the projects are completed (including the state's most recent solar project which was completed in August 2002) and the remaining 16 projects are under construction.
- Approximately \$3.6 million has been allocated for investment grade audits at 63 additional facilities. Five projects have been approved by the Public Works Board for Energy Revenue Bond project funding. Fifteen audits are being reviewed for consideration for funding opportunities through the Energy Revenue Bond Program.
- \$516,246 has been placed in a reserve contingency account to address unanticipated costs that may be realized during a project's development and construction (e.g. asbestos discovery and associated remediation).

When complete, cash funded projects will generate over \$4.8 million per year in energy savings, conserve 30,648 megawatt hours annually\*, and reduce peak load demand by eight megawatts. The average simple payback period for these projects is 7.4 years. Other projects resulting from the ongoing audits that get funded through the Energy Revenue Bond Program will result in additional energy savings and peak load reduction.

If you need further information or assistance, you may wish to have your staff contact Randy Ferguson, Program Director, Energy Management Office, Department of General Services, at 445-7656.

Sincerely,

J. Clark Kelso, Interim Director Department of General Services JCK:GC:rt

cc: Attached Distribution List #8

\* Energy savings for the DMH, Atascadero State Hospital project have been revised to reflect a minor change in the scope of work based on site conditions.

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Office of Legislative Counsel Attention: Indexing Division 925 L Street, Suite 1150, B-30 Sacramento, CA 95814 (1 copy)

**Originating Office** 

SB X1 5--REVISED 03/24/03



# Energy Efficiency Projects - SB 5X Legislative Report

September 30, 2002

ENERGY MANAGEMENT OFFICE 717 K Street, Suite 409 Sacramento, CA 95814 (916) 323-8777

#### PROJECTS IN CONSTRUCTION

Project Description / Measures	Projected On-Line Date	Project Cost	Annual Energy Savings / <u>Dollars</u>	kW Savings	Annual kWh <u>Savings</u>	Annual Therm <u>Savings</u>	Annual Water <u>Savings</u>	<u>kWh / \$</u> *
CCD, Cypress Community College								
Lighting - T-8 Lamps, Electronic Ballasts	3/6/2003	\$646,933	\$140,802	343	1,236,364	0	\$0	28.67
HVAC - Boiler Replacements	3/6/2003	\$652,203	\$87,480	0	14,368	61,357	\$0	0.44
EMS - Energy Management Control System	3/6/2003	\$448,719		0	, -	10,857	\$0	17.23
	-	\$1,747,855	\$300,182	343	1,766,186	72,214	\$0	16.63
CCD, Fullerton College								
Lighting - T-8 Lamps, Electronic Ballasts	5/6/2003	\$707,149	\$143,377	320	1,262,700	0	\$0	26.78
EMS - Replace and Expand Energy Management Control System	5/6/2003	\$429,324	\$73,095	91	664,500	0		23.22
Other - TES Installation, Boiler Replacements	5/6/2003	\$1,128,332	\$169,195	250	761,772	58,500	\$0	13.50
	-	\$2,264,805		661	2,688,972	58,500		20.41
CCD, Mt. San Jacinto College								
Lighting - T-8 Lamps, Electronic Ballasts	9/20/2002	\$76,076	\$25,410	47	140,000	0	\$0	27.60
HVAC - Zone Controls, Efficiency Motors	10/15/2002	\$286,967	\$65,522	137	361,000	0	**	25.16
EMS - Upgrade Energy Management Control System, Replace Points	10/25/2002	\$386,817		326	530,000	0		20.55
Cino Opgrado Energy management Common Cyclomy, respirato a management Cyclomy, respirato a managem		\$749,860		510	1,031,000	0		22.92
CCD, Ohlone College								
Lighting - Motion Detectors	11/1/2002	\$10,496	\$6,494	0	90,200	0	\$0	128.91
EMS - Irrigation Control System	10/16/2002	\$23,316		0	90,200	0		128.91 N/A
Water - Occupancy Sensors for Sinks and Flush Valves	11/15/2002	\$39,218		0		0	*-,	N/A N/A
water - Occupancy Sensors for Sinks and Flush valves	11/13/2002	\$73,030		0		0		128.91
CDC, Calipatria State Prison								
Lighting - Fluorescent / Incandescent Fixtures, LED Exit Signs	2/3/2003	\$881,432	\$89,600	263	1,321,601	0	\$0	22.49
HVAC - Cooling Towers, Pump Motors, VFDs, TES, EMS Expansion, Fans	2/3/2003 8/5/2003	\$881,432 \$4,236,749		1,890	7,996,863	0		33.97
HVAC - Cooling Towers, Purity Motors, VPDS, TES, EIVIS Expansion, Fairs	8/3/2003	\$4,236,749 \$5,118,181	\$613,429 \$ <b>703,029</b>	1,890 <b>2,153</b>	9,318,464	0		33.97 <b>32.08</b>
	-	φ3,110,101	φ103,023	2,100	3,310,707		Ψ0	32.00
CDC, Ironwood State Prison Project								
Lighting - T8 Lamps, Electronic Ballasts, Exit Lamps, Occupancy Sensors	5/3/2003	\$1,361,551	\$251,519	2,180	2,114,195	0		23.29
HVAC - Motor Replacements	5/3/2003	\$573,690		40	648,000	0		22.59
	-	\$1,935,241	\$313,531	2,220	2,762,195	0	\$0	22.82
CDC, Susanville Gas Line Project								
Other - Gas Dist. System, Boilers, Propane Appl. Conv., Thermal Dist. System	6/30/2003	\$2,078,420	\$324,889	0	0	2,641,373	\$0	N/A
	- -	\$2,078,420	\$324,889	0	0	2,641,373	\$0	N/A
CYA, DeWitt Nelson Youth Correctional Facility								
Lighting - T8 Lamps, Electronic Ballasts	3/18/2002	\$118,913	\$21,248	16	118,042	0	\$0	14.89
	-	\$118,913	\$21,248	16	118,042	0	\$0	14.89

Projects in Construction - Cont'd.								
Project Description / Measures	Projected On-Line Date	Project Cost	Annual Energy Savings / <u>Dollars</u>	kW Savings	Annual kWh <u>Savings</u>	Annual Therm <u>Savings</u>	Annual Water <u>Savings</u>	<u>kWh / \$</u> *
CYA, El Paso De Robles School	0/20/2002	\$227,020	\$47,005	24	229 420			45.07
Lighting - T8 Lamps, Electronic Ballasts	9/30/2002	\$227,029 <b>\$227,029</b>	\$47,905 <b>\$47,905</b>	31 <b>31</b>		C		15.07 <b>15.07</b>
CYA, Fred C. Nelles School (Whittier)								
Lighting - T8 Lamps, Electronic Ballasts	9/30/2002	\$381,143 <b>\$381,143</b>	\$47,303 <b>\$47,303</b>	33 33		0		9.55 <b>9.55</b>
CYA, Herman Stark Youth Training School (Chino)		-						
Lighting - T8 Lamps, Electronic Ballasts	9/30/2002	\$401,110	\$72,103	47		0		12.84
		\$401,110	\$72,103	47	343,348	0	\$0	12.84
CYA, Karl Holton, Drug/Alch Treament Facility Lighting - T8 Lamps, Electronic Ballasts	4/8/2002	\$95,383	\$39,294	24	179,412	0	\$0	28.21
		\$95,383	\$39,294	24	179,412	0	\$0	28.21
CYA, Northern Calif. Correctional Reception Center & Clinic	44/20/2004	<b>\$225.675</b>	<b>\$40.007</b>	40	400 474			7.05
Lighting - T8 Lamps, Electronic Ballasts	11/30/2001	\$235,675 <b>\$235,675</b>		12 12		0		7.65 <b>7.65</b>
CYA, O.H. Close Youth Correctional Facility								
Lighting - T8 Lamps, Electronic Ballasts	4/26/2002	\$92,291 <b>\$92,291</b>	\$42,495 <b>\$42,495</b>	32 32		<u></u>		38.37 38.37
CYA, Preston School of Industry (Ione)		, , ,	• ,				•	
Lighting - T8 Lamps, Electronic Ballasts	2/22/2002	\$419,013		29		0		7.61
		\$419,013	\$32,966	29	212,682	0	\$0	7.61
CYA, South Reception Center (Norwalk) Lighting - T8 Lamps, Electronic Ballasts	9/30/2002	\$235,675	\$23,554	16	120,174	O	\$0	7.65
		\$235,675		16		0		7.65
CYA, Ventura School (Camarillo)	0/00/0000	<b>#000.054</b>	\$40.4F0	00	045.044			40.00
Lighting - T8 Lamps, Electronic Ballasts	9/30/2002	\$320,651 <b>\$320,651</b>	\$49,453 <b>\$49,453</b>	29 <b>29</b>		0 0		10.06 <b>10.06</b>
DGS, Justice Building Project								
Lighting - T8 Lamps, Electronic Ballasts HVAC - Chiller, VSDs	12/20/2002 2/26/2003	\$295,342 \$749,106		59 58		0		15.00 29.54
EMS - Hardware and Software	2/26/2003	\$433,629	\$84,829	170	732,691	24,294	\$0	25.35
		\$1,478,077	\$223,612	287	2,134,542	24,294	\$0	25.20
DGS, Energy Commission Building Project Lighting - Lighting and Lighting Control Systems	11/2/2002	\$178,668	\$20,909	0	209,093	C	\$0	17.55
		\$178,668	\$20,909	0	209,093	0	\$0	17.55
DGS, Fresno Office Project Lighting - T8 Lamps, Electronic Ballasts, Occupancy Sensors	1/2/2003	\$218,517	\$30,099	49	214,992	O	\$0	14.76
HVAC - VSDs on Chiller and Pumps, Control System Modifications	1/2/2003	\$269,925	\$23,213	38	165,805	C	\$0	11.06
		\$488,442	\$53,312	87	380,797	0	\$0	12.71
DGS, Franchise Tax Board Phase II Project Other - Photo Voltaic Installation	8/23/2002	\$1,564,400	\$88,433	184	803,940	O	\$0	12.85
		\$1,564,400		184				12.85

Projects in Construction - Cont'd.								
Project Description / Measures	Projected On-Line Date	Project Cost	Annual Energy Savings / <u>Dollars</u>	kW Savings	Annual kWh <u>Savings</u>	Annual Therm <u>Savings</u>	Annual Water <u>Savings</u>	<u>kWh / \$</u> *
DGS, Franchise Tax Board								
Lighting - HID and Fluorescent Lighting	11/8/2002	\$577,055	\$149,376	387	1,508,847	0	\$0	39.22
		\$577,055	\$149,376	387	1,508,847	0	\$0	39.22
DGS, Library Courts Bldg II Project								
Lighting - T8 Lamps, Electronic Ballasts, Reflectors	5/31/2002	\$153,460	\$23,210	73	401,873	0	\$0	39.28
Lighting To Earnps, Electronic Ballasts, Neticolors	3/31/2002	\$153,460	\$23,210	73	401,873	0		39.28
	•	<b>V.00,.00</b>	<b>4-0,0</b>		,		<del>\</del>	00.20
DGS, Santa Rosa State Office								
HVAC -Motors, VFDs, Air Handler Units	10/7/2002	\$145,652	\$19,293	23	117,439	1,058	\$0	12.09
Water - Domestic Hot Water Controls	8/29/2002	\$716	\$170	0	1,206	37	\$0	16.84
	,	\$146,368	\$19,463	23	118,645	1,095	\$0	12.12
DGS, Van Nuys Office Project								
HVAC - VSDs for CHW, CW Pumps, CT Fans, CO Controls	6/28/2002	\$335,643	\$29,627	4	246,014	7,013	\$0	13.19
EMS - Energy Management Control System / DDC Controls	10/30/2002	\$99,507	\$19,670	0	167,020	4,062	\$0	25.18
Zino Zinoig) managomoni osimol oyotom, 220 osimolo	10/00/2002	\$435,150	\$49,297	4	413,034	11,075	\$0	15.95
	•							
DMH, Atascadero State Hospital Project								
Chiller/ AHU Mtr Rpl, Chiller/Booster Pumps, Heat Rec Sys, VSDs & Ctrl Cmprs	4/11/2003	\$4,901,000	\$594,151	693	2,950,234	171,757	\$0	20.77
	•	\$4,901,000	\$594,151	693	2,950,234	171,757	\$0	20.77
DMH, Patton State Hospital Project								
HVAC - Boiler Replacement	4/14/2003	\$7,052,872	\$639,039	54	398,932	698,666	\$0	1.13
Tithe Bollot Hopiaconions		\$7,052,872	\$639,039	54	398,932	698,666	\$0	1.13
			·		·	·		
DMH, Patton State Hospital Phase II								
HVAC - Motors, VFDs	7/12/2004	\$152,763	\$23,826	0	158,731	0	\$0	20.78
EMS - New EMS System	7/12/2004	\$1,878,659	\$245,109	0	1,148,713	88,675	\$0	9.17
Other - Pumping System	7/12/2004	\$353,798	\$36,048	0	240,160	0	\$0	12.22
		\$2,385,220	\$304,983	0	1,547,604	88,675	\$0	10.22
DPR, Hearst Castle Lighting Retrofit								
Lighting - Lighting Retrofit	6/25/2002	\$59,970	\$10,743	32	107,428	0	\$0	26.87
		\$59,970	\$10,743	32	107,428	0		26.87
Total of Projects in Construction	•	\$35,914,957	\$4.811.065	7.980	30.647.611	3,767,649	\$18,670	15.91

AUDITS								
Project Description	<u>Audits</u>							
ARB, Haagen-Smit Laboratory								
ARB, Headquarters \$ CC, Bakersfield College \$	2,000 6,936							
CC, Copper Mountain College \$	962							
CC, LA Harbor College \$ CC, Long Beach City College \$	3,954 16,302							
CC, Merced College \$	7,315							
CC, West Hills College \$ CC, West Valley College \$								
CDC, California State Prison (Represa, New Folsom)								
CDC, Chuckwalla \$ CDC, Correctional Training Facility (Soledad) \$								
CDC, CSP-LA County \$	88,431							
CDC, Deuel Vocational Institute (Tracy) \$ CDC, Galt Training Center (Galt) \$								
CDC, Mule Creek State Prison (lone) \$ CDC, North Kern State Prison \$								
CDC, North Kern State Prison  CDC, Salinas Valley State Prison - Soledad II  \$	101,732 42,164							
CDC, San Quentin State Prison \$ CDE, School For The Deaf (Riverside) \$	6,754 91,168							
CHP, Academy / Administrative Offices \$								
CHP, Vallejo \$ DDS, Canyon Springs \$								
DDS, Porterville Developmental Center \$								
DGS, Bateson Building \$ DGS, Board of Equalization \$								
DGS, DWR Fresno Annex	24,365							
DGS, EDD Annex \$ DGS, EDD Headquarters \$	54,686 11,127							
DGS, Edmund G. Brown Building (aka PUC)	90,803							
DGS, Education Building \$ DGS, Elihu Harris Building (Oakland) \$								
DGS, Heating & Cooling Plant								
DGS, Junipero Serra Office (Los Angeles) \$ DGS, Legislative Office Building \$								
DGS, Library & Courts Building   \$								
DGS, Mission Valley Building (San Diego) \$ DGS, Personnel Building \$								
DGS, Red Bluff State Building \$ DGS, Redding State Building \$								
DGS, Resources Building \$	87,845							
DGS, Ronald Reagan Building (Los Angeles) \$ DGS, San Diego Office \$								
DGS, San Francisco Civic Center \$	118,008							
DGS, San Jose State Office \$ DGS, Santa Ana State Office \$		ļ						
DGS, Secretary of State Building (State Archives)	51,571							
DGS, State Capitol \$ DGS, State Printing Plant \$		ļ						
DGS, Stockton State Building	49,634							
DMH, Metropolitan State Hospital \$ DMH, Napa State Hospital - HVAC / Cogen \$								
DMV, Los Angeles (Hope)	13,074							
DMV, Sacramento ( 2415 / 2490 First) \$ DMV, Sacramento (4700 Broadway) \$	98,376 11,894							
DSS, Dept. of Social Services (Fresno)	18,110							
DVA, Barstow Veterans Home \$	79,816							

Project Description	<u>Audits</u>			
DWR, Delta Field Office	\$ 67,380			
DWR, Oroville (Richvale)	\$ 70,763			
DWR, San Luis Obispo	\$ 54,089			
EDD, Los Angeles (South Broadway)	\$ 4,750			
EDD, San Jose	\$ 20,899			
Lottery, California State Lottery Commission	\$ 79,439			
TOTAL AUDITS	\$ 3,568,797			

## RESERVE CONTINGENCY ACCOUNT

<u>Description</u> <u>Amount</u>

Reserve Contingency Account \$ 516,246

GRAND TOTAL \$40,000,000

(INCLUDES CONSTRUCTION, AUDITS AND RESERVE CONTINGENCY ACCOUNT)

CYA project information is provided by CYA.

EMD's energy savings calculations are based upon engineering estimates.

<sup>\* ((</sup>Annual kWh Savings \* Asset Life)/Project Cost) - Does not account for savings associated with natural gas and water.